Customer No.: 31561
Docket No.: 12590-US-PA
Application No.: 10/709,607

AMENDMENT

In The Claims:

1. (Currently amended) A pipe trap for filtering gaseous exhaust, comprising:

a pipe trap body with a gas inlet, a gas outlet and a hollow interior;

a disc filter set up inside the pipe trap body;

a pipe set up inside the pipe trap body with one end linked to the disc filter and the other end linked to the gas outlet, wherein an area on the pipe faces the gas inlet; and

a plurality of mesh filters **for filtering the particles from the gaseous exhaust** set up inside the pipe , wherein the gaseous exhaust enters the pipe trap from the gas inlet, passes through the outer wall of the pipe into the disc filter interior, and travels through the mesh filters sequentially before emerging from the pipe trap via the gas outlet.

2. (original) The pipe trap of claim 1, wherein the pipe trap body further comprises:

a base; and

a tube body set up on the base, wherein the gas inlet and the gas outlet are formed on the tube body.

3. (original) The pipe trap of claim 2, wherein the gas inlet is formed on one side of the tube body and the gas outlet is formed on the top surface of the tube body.

4. (original) The pipe trap of claim 2, wherein the pipe trap body further comprises a fixed shaft set up on the base for mounting and fastening the mesh filters inside the pipe.

5. (original) The pipe trap of claim 4, wherein the disc filter further comprises a plurality of ring-shaped discs stacked up on the base with the pipe set up on top of the disc filter.

6. (original) The pipe trap of claim 5, wherein the upper and lower surface of the ring-shaped disc have a plurality of minute grooves running from inner periphery to the outer periphery of the disc.

7. (original) The pipe trap of claim 5, wherein the upper and lower surfaces of the ring-shaped disc further comprises a plurality of spines.

8. (original) The pipe trap of claim 5, wherein the upper and lower surfaces of the ring-shaped disc further comprises a plurality of grooves.

9. (original) The pipe trap of claim 5, wherein the ring-shaped discs are stacked together to form a tube-shaped body.

10. (original) The pipe trap of claim 5, wherein each ring-shaped disc has an alignment edge such that all the ring-shaped discs are stacked with all the alignment edges aligned.

11. (original) The pipe trap of claim 5, wherein each ring-shaped disc has an alignment edge, and portion of the ring-shaped discs are aligned through their alignment edges in a first direction and another portion of the ring-shaped discs are aligned through their alignment edges in a second direction.

12. (original) The pipe trap of claim 1, wherein the area on the pipe has a planar surface.

13. (original) The pipe trap of claim 12, wherein the pipe trap further comprises a plurality of partition plates set up on the planar surface of the pipe.

14. (original) The pipe trap of claim 1, wherein the pipe trap further comprises a plurality of partition plates set up on the outer wall of the pipe.

15. (original) The pipe trap of claim 1, wherein the distance from the interior wall

of the pipe trap body close to the gas inlet to the area on the pipe is set to 3cm.

16. (original)The pipe trap of claim 1, wherein the diameter of pores in each mesh filter is different and the mesh filters are laid such that the diameter of pores decreases from the disc filter towards the gas outlet.

17. (original) The pipe trap of claim 1, wherein the pipe trap further comprises a plurality of fastening elements set up on the edges of each mesh filter so that the mesh filters can be joined together to form an integrated unit.